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1993

B.Y. Morrison
Memorial Lecture

Is Biological Control Working?

by George C. Papavizas

7 p.m.

Monday, November 8, 1993

Handy Room, Opryland Hotel

Nashville, Tennessee

sponsored by

The Agricultural Research Service,

U.S. Department of Agriculture

in cooperation with

The American Phytopathological Society

Dr. George C. Papavizas is internationally recognized as the expert in the ecology and biological control of plant pathogenic fungi. His research has served as the foundation for new and dynamic phases in the biological control of soilborne plant pathogens.

In his 35 years of research and more than 280 publications, Dr. Papavizas has extended our knowledge of fungi responsible for seed decay, damping-off, root rot, wilt, and fruit rot of our most important vegetable, field crop, and ornamental commodities.

Under his leadership, the ARS Biocontrol of Plant Diseases Laboratory has been in the forefront of transferring technology for the development of commercial biocontrol to industry. The lab developed and patented encapsulated *Gliocladium virens*—the first EPA registered biocontrol product to reduce damping-off diseases of ornamentals in commercial greenhouses. This product, now available as Gliogard, could potentially reduce losses in the florist and nursery crop industry by \$200-\$300 million a year.

From the beginning, Dr. Papavizas recognized that one of the major obstacles in the ecological study of plant pathogens was researchers' inability to isolate pathogens and quantify the level of their population. He developed methods to overcome these problems through the use of petri dish growth media modified with specific antibiotics and fungicides. This pioneering effort has allowed Dr. Papavizas and others to study the effects of a wide variety of environmental, chemical, and biological factors on plant pathogens and the diseases they cause. The basic knowledge so developed has allowed scientists to forecast the potential for disease in soils infested with a pathogen and study approaches for disease control.

Among Dr. Papavizas's many achievements was the production, for the first time in plant pathology, of new genetic variants of biocontrol agents such as *Gliocladium* and *Trichoderma*.

He has also advanced fundamental principles on the manner in which organic and inorganic constituents influence the ecology and behavior of important plant pathogens.

Dr. Papavizas earned his B.S. from the University of Salonica and his M.S. and Ph.D. from the University of Minnesota.

The B.Y. Morrison Memorial Lecture series was established in 1968 by the Agricultural Research Service to recognize scientists who have made outstanding contributions to ornamental horticulture and other environmental sciences, to encourage the wide application of these sciences, and to stress the urgency of preserving and enhancing natural beauty.

B.Y. Morrison (1891-1966) was a pioneer in ornamental horticulture and first director of the National Arboretum in Washington, D.C. A scientist, landscape architect, plant explorer, author, and lecturer, he advanced the science of botany in the United States and fostered broad international exchange of ornamental plants. His legacy to the American public includes dozens of new ornamental plants, including the famous Glenn Dale azaleas.

The Agricultural Research Service, the principal scientific research agency in the U.S. Department of Agriculture, helps provide knowledge and technology for the benefit of American farmers and consumers. The research includes safeguarding soil, water, air, plants, and animals from pollution; protecting crops and livestock from insects, diseases, and other pests; providing beautiful and useful plants for rural and urban environments; and packaging technical information for users in more accessible forms.

The American Phytopathological Society was founded in 1908 with 130 charter members to promote excellence in the science and profession of plant pathology. Today, with a worldwide membership of nearly 4,500 plant pathologists and scientists in related fields, APS is the premier organization advancing modern concepts in plant health management in agriculture, urban, and forest settings.

Previous Lecturers

1992, Conrad A. Skimina, Research Director, Monrovia Nursery Co., Azusa, CA, before the American Society for Horticultural Science

1991, Arthur Kelman, Distinguished Scholar, North Carolina State University before the American Phytopathological Society

1990, Marvin E. Jensen, Director, Colorado State University, Institute for Irrigation Management, before the Irrigation Association

1989, Mildred E. Mathias, Emeritus Professor of Botany, University of California at Los Angeles, before the Woman's National Farm and Garden Association, Inc.

1988, Richard W. Lighty, Director, Mt. Cuba Center for the Study of Piedmont Flora, Greenville, DE, before the American Association of Botanical Gardens and Arboreta

1987, H.B. Tukey, Jr., Professor and Director of the Center for Urban Horticulture, Washington Park Arboretum, University of Washington-Seattle, before the Ohio Florist Short Course

1986, Alex Shigo, Shigo and Trees, Associates, Durham, NH, before the American Society of Consulting Arborists

1985, S. Dillon Ripley, Secretary Emeritus, Smithsonian Institution, before the American Institute of Biological Sciences

1984, John Cairns, Jr., Distinguished Professor of Biology and Director, Center for Environmental Studies, Virginia Tech, before the International Chemical Congress

1983, Vernon W. Ruttan, Professor, Agricultural and Applied Economics, Department of Economics, University of Minnesota, before the American Society for Horticultural Science

1982, August Kehr, retired Agricultural Research Service Coordinator for National and Regional Research Programs on Vegetable, Florist, and Nursery Crops, before the American Rhododendron Society

1981, John Creech, Past Director, National Arboretum, before the American Horticultural Society

1980, John Naisbitt, Publisher, *The Trend Report*, before the American Society of Landscape Architects

1979, William H. Whyte, author and conservationist, before the National Trust for Historic Preservation

1978, Charles Lewis, Administrator, Collections Program, The Morton Arboretum, before the American Institute of Planners

1977, Russell Peterson, President, New Directions, before the National Education Association

1976, William K. Reilly, President, The Conservation Foundation, before the National League of Cities

1975, Nash Castro, General Manager, Palisades Interstate Park Commission, before the American Association of Nurserymen

1974, Dame Barbara Ward, President, International Institute for Environmental Affairs, before the American Society of Planning Officials

1973, John Mahlstedt, Professor of Horticulture, Iowa State University, before the American Horticultural Society

1972, René J. Dubos, Professor Emeritus, The Rockefeller University, before the American Association for the Advancement of Science

1971, Ian L. McHarg, Chairman, Department of Landscape Architecture and Regional Planning, University of Pennsylvania, before the North American Wildlife and Natural Resources Conference

1970, Arie Jan Haagen-Smit, Chairman, President's Task Force on Air Pollution, before the American Society of Landscape Architects

1969, Patrick Horsbrugh, Professor of Architecture and creator of the Graduate Program in Environic Studies, Notre Dame University, before the General Federation of Women's Clubs

1968, Lady Bird Johnson, First Lady of the United States, before the American Institute of Architects

